**2.3 Product, Quotient, and Trig rules**

**Find the first and second derivative of each using the appropriate rule:**

1. 2. 3.

4. 5. 6.

7. 8.

9. 10.

Population growth:

A population of 500 rabbits is increased into a forest and grows in number according to the equation . Time is measured in years.

a. What rate is the population growing after 24 months?

b. Can you expect this rate to continue forever? Why or why not?